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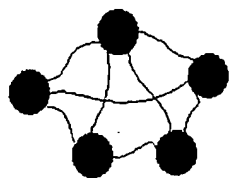
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(54) Title: NETWORK SILICA FOR ENHANCING TENSILE STRENGTH OF RUBBER COMPOUND



: bridge chain



: primary particle of silica

Three-dimensional networks formed among silica particles.

break, compared to those of the rubber compounds reinforced with silica and the conventional coupling reagents.

(57) Abstract: The present invention relates to A three-dimensionally networked silica composed of silica particles of 0 to 100 nm combining by bridge chains of aliphatic, aromatic, polyimine, peptide, and polyether groups. When the networked silica of the present invention can be used to rubber compounds, the compounds brought about considerable increases in tensile strength and elongation at break.

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